

# *News Release*



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## **NEW QUARTERLY DATA FROM BLS ON BUSINESS EMPLOYMENT DYNAMICS BY STATE**

**OCTOBER 18, 2007** - Data on Business Employment Dynamics (BED) by state were introduced by the Bureau of Labor Statistics of the U.S. Department of Labor. These data track the number of jobs gained from opening and expanding establishments and the number of jobs lost at contracting and closing establishments each quarter from September 1992 to December 2006 for the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Beginning with data for first quarter 2007, state data will appear in the quarterly BED news release by BLS.

### **What are Business Employment Dynamics?**

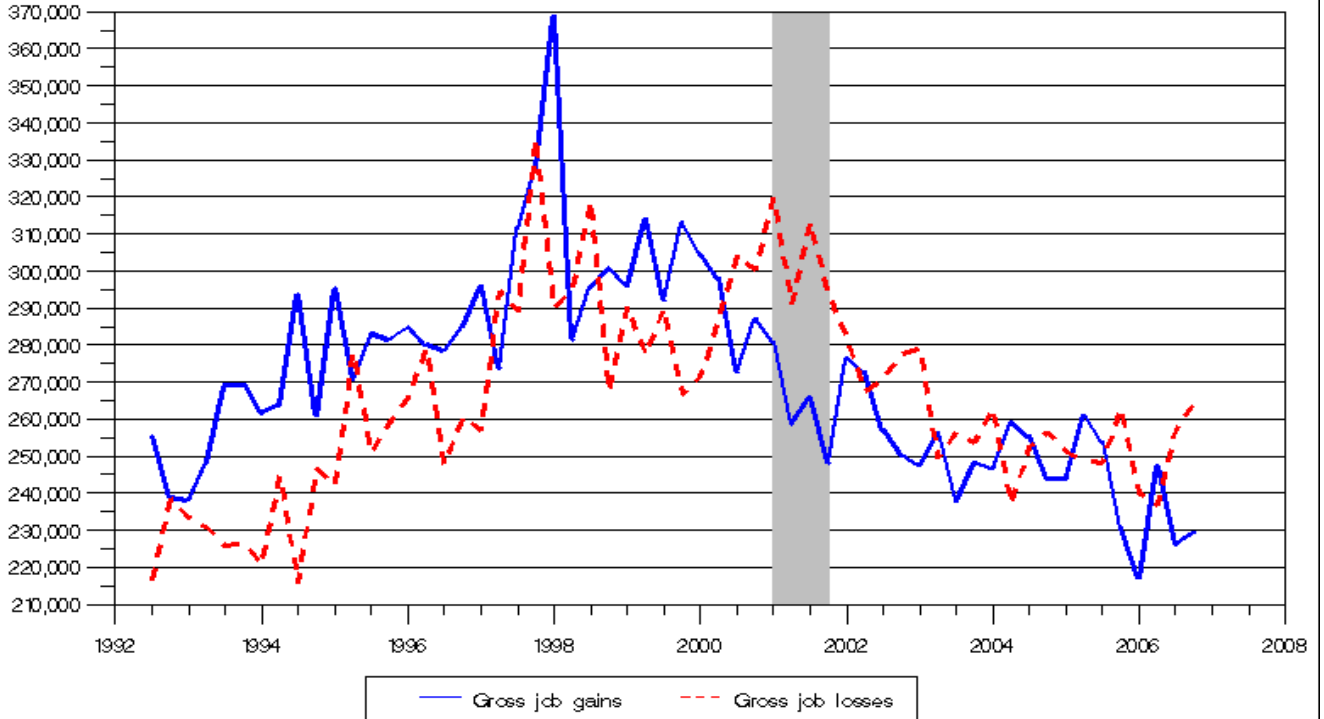
The economy is in a constant state of change; individual businesses are starting, stopping, growing, and declining. The BED data series are designed to illuminate these dynamic changes in business establishments and employment over time through expansions, contractions, openings, and closings. This new Business Employment Dynamics data series includes gross job gains and gross job losses at the establishment level for the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands.

The change in the number of jobs over time is the net result of increases and decreases in employment that occur at all businesses in the economy. BED statistics track these changes in employment at private business establishments from the third month of one quarter to the third month of the next. Gross job gains are the sum of increases in employment from expansions at existing units and the addition of new jobs at opening units. Gross job losses are the result of contractions in employment at existing units and the loss of jobs at closing units. The difference between the number of gross jobs gained and the number of gross jobs lost is the net change in employment. (See the Technical Note for more information.)

The data series on Business Employment Dynamics are derived from the Quarterly Census of Employment and Wages (QCEW), also known as the ES-202 program. This program is a quarterly census of all establishments covered under state and federal unemployment insurance programs, representing about 98 percent of employment on non-farm payrolls. All data referred to in the text are seasonally adjusted. (see Technical Note for more information)

**Private sector gross job gains and gross job losses, seasonally adjusted  
September 1992 – December 2006**

**Michigan**



**Note: Shaded area represents recession period.**

(Note: Data for gross job gains between the years 1997-1998 was due to the addition of administrative records to quarterly database. This trend does not reflect true job gains.)

More detailed information and data on states' gross job gains and gross job losses are available at the Business Employment Dynamics Web page at <http://www.mich.gov/lmi>. This information includes data on the levels and rates of gross job gains and gross job losses by state, both seasonally adjusted and not seasonally adjusted, from September 1992 to December 2006—the most recent published quarter. In addition, data on the number of establishments that opened or closed and expanded or contracted each quarter are available by state on the Web site.

### **Uses of the Data**

State gross job gain and gross job loss statistics highlight the forces behind job growth. In addition to being a measure of comparing the employment dynamics across states, the BED data can be used in highlighting state labor markets over the course of the business cycle, as well as measuring the importance of job changes at opening and closing establishments relative to changes at existing establishments.

### **Michigan Business Employment Dynamics**

From October to December 2006 in Michigan, gross job gains represented 6.4 percent of private sector employment, and gross job losses represented 7.4 percent of private sector employment, according to preliminary data released today by The Michigan Department of Labor & Economic Growth and the

Bureau of Labor Statistics of the U.S. Department of Labor. This was slightly lower than the national rates of gross job gains (6.8 percent) and higher than the U.S. rate for gross job losses (6.4 percent). The number of job gains from opening and expanding establishments was 229,386, and the number of job losses from closing and contracting establishments was 264,248. Expanding and contracting establishments accounted for most of the jobs gained and lost.

### Trends in Gross Job Gains and Job Losses

Opening and expanding private sector business establishments in Michigan gained 229,386 jobs in the fourth quarter of 2006, or 3,147 more than in the third quarter of 2006. Over the quarter, expanding establishments added 179,625 jobs, while opening establishments added 49,761. Gross job gains were smaller than in the previous quarter at expanding establishments while opening establishments experienced an increase.

Gross job losses totaled 264,248 in the fourth quarter 2006, up by 7,378 from the third quarter. In the fourth quarter 2006, contracting establishments lost 211,748 jobs, while closing establishments accounted for a loss of 52,500 jobs. (See table A.)

**Table A. 3-month private sector gross job gains and losses, seasonally adjusted**

Category	3 months ended				
	Dec 2005	March 2006	June 2006	Sept 2006	Dec 2006
	Levels				
Gross job gains .....	230,363	217,168	247,226	226,239	229,386
At expanding establishments .....	181,035	170,642	194,932	181,434	179,625
At opening establishments .....	49,328	46,526	52,294	44,805	49,761
Gross job losses .....	262,768	240,164	236,767	256,870	264,248
At contracting establishments .....	209,499	193,826	191,800	207,421	211,748
At closing establishments .....	53,269	46,338	44,967	49,449	52,500
Net employment change <sup>1</sup> .....	-32,405	-22,996	10,459	-30,631	-34,862

<sup>1</sup> The net employment change is the difference between total gross job gains and total gross job losses. See the Technical Note for further information.

### Rates of Gross Job Gains and Gross Job Losses

From October to December 2006, gross job gains represented 6.4 percent of private sector employment. Over the quarter, gross job gains at expanding establishments represented 5.0 percent of private sector employment, and gross job gains at opening establishments represented 1.4 percent. Nationally this quarter, gross job gains at expanding establishment represented 5.5 percent of private sector employment, and at opening establishments represented 1.3 percent.

From October to December 2006, gross job losses represented 7.4 percent of private sector employment. Gross job losses at contracting establishments represented 5.9 percent of private sector employment, which was higher than the national rate at contracting establishments (5.2 percent). The rate of gross job losses at closing establishments (1.5 percent) was also higher than the national rate (1.2). (See chart 3 and table B.) The rates of gross job gains and losses provide a picture of the amount of “job churning” that occurs in the labor market.

**Table B. 3-month private sector gross job gains and losses as a percent of employment, seasonally adjusted**

Category	3 months ended				
	Dec 2005	Mar. 2006	June 2006	Sep. 2006	Dec 2006
Rates (percent)					
Total Private for Michigan					
Gross job gains.....	6.2	6.0	6.7	6.2	6.4
At expanding establishments.....	4.9	4.7	5.3	5.0	5.0
At opening establishments.....	1.3	1.3	1.4	1.2	1.4
Gross job losses.....	7.2	6.6	6.5	7.1	7.4
At contracting establishments.....	5.7	5.3	5.3	5.7	5.9
At closing establishments.....	1.5	1.3	1.2	1.4	1.5
Net employment change <sup>1</sup> .....	-1.0	-0.6	0.2	-0.9	-1.0
Rates (percent)					
Total Private for United States as a whole					
Gross job gains.....	7.1	6.7	6.9	6.5	6.8
At expanding establishments.....	5.7	5.5	5.6	5.3	5.5
At opening establishments.....	1.4	1.2	1.3	1.2	1.3
Gross job losses.....	6.5	6.0	6.5	6.5	6.4
At contracting establishments.....	5.3	4.9	5.3	5.3	5.2
At closing establishments.....	1.2	1.1	1.2	1.2	1.2
Net employment change <sup>1</sup> .....	0.6	0.7	0.4	0.0	0.4

<sup>1</sup> The net employment change is the difference between total gross job gains and total gross job losses. See the Technical Note for further information.

### Number of Establishments Gaining and Losing Employment

Another way to observe the dynamics of employment change is to count the number of establishments that opened, closed, expanded, or contracted during the quarter. A total of 52,707 establishments gained jobs from October to December 2006. (See table C.) Of these, 41,237 were expanding establishments

and 11,470 were opening establishments. During the fourth quarter of 2006, 58,138 establishments lost jobs. Of these, 47,029 were contracting establishments and 11,109 were closing establishments.

**Table C. Number of private sector establishments by direction of employment change, seasonally adjusted**

Category	3 months ended				
	Dec 2005	March 2006	June 2006	Sep 2006	Dec 2006
Establishments gaining jobs.....	54,037	53,852	54,767	51,935	52,707
Expanding establishments.....	42,873	42,616	44,053	41,671	41,237
Opening establishments.....	11,164	11,236	10,714	10,264	11,470
Establishments losing jobs.....	58,666	57,979	56,745	58,640	58,138
Contracting establishments.....	47,678	46,291	46,195	46,450	47,029
Closing establishments.....	10,988	11,688	10,550	12,190	11,109
Net establishment change <sup>1</sup> .....	176	-452	164	-1,926	361

<sup>1</sup> The net establishment change is the difference between the number of opening establishments and the number of closing establishments. See the Technical Note for further information.

## More Information

Industry and regional data for Michigan will become available in future releases.

For updates of the Business Employment Dynamics series, please refer to the State of Michigan website at <http://www.mich.gov/lmi>. For more information, please see the Technical Note of this release or the Business Employment Dynamics Web page at the BLS Web site <http://www.bls.gov/bdm/>.

### Comparing Business Employment Dynamics Data with Current Employment Statistics and Quarterly Census of Employment and Wages Data

The net change in employment from Business Employment Dynamics (BED) data series will not match the net change in employment from the monthly Current Employment Statistics (CES) survey. The CES estimates are based on monthly surveys from a sample of establishments, while gross job gains and gross job losses are based on a quarterly census of administrative records. In addition, the CES has a different coverage, excluding the agriculture sector but including establishments not covered by the unemployment insurance program. The net over-the-quarter changes derived by aggregating component series in the BED data may be different from the net employment change estimated from the CES seasonally adjusted total employment series. The intended use of the BED statistics is to show the dynamic labor market flows that underlie the net changes in aggregate employment levels; data users who want to track net changes in aggregate employment levels over time should refer to CES data.

BED data have a more limited scope than the Quarterly Census of Employment and Wages (QCEW) data. The data in this release, in contrast to the QCEW data, exclude government employees, private households (NAICS 814110), and establishments with zero employment.

See the Technical Note for further information.

## Technical Note

The Business Employment Dynamics (BED) data are a product of a federal-state cooperative program known as Quarterly Census of Employment and Wages (QCEW), or the ES-202 program. The BED data are compiled by the U.S. Bureau of Labor Statistics (BLS) from existing quarterly state unemployment insurance (UI) records. Most employers in the U.S. are required to file quarterly reports on the employment and wages of workers covered by UI laws, and to pay quarterly UI taxes. The quarterly UI reports are sent by the Michigan Department of Labor & Economic Growth to BLS and form the basis of the Bureau's establishment universe sampling frame. These reports also are used to produce the quarterly QCEW data on total employment and wages and the longitudinal BED data on gross job gains and losses. Other important Bureau uses of the UI reports are in the Current Employment Statistics (CES) program. (See table below for differences between QCEW, CES, and BED.)

In the BED program, the quarterly UI records are linked across quarters to provide a longitudinal history for each

establishment. The linkage process allows the tracking of net employment changes at the establishment level, which in turn allows the estimation of jobs gained at opening and expanding establishments and jobs lost at closing and contracting establishments.

### **Differences between QCEW, BED, and CES employment measures**

The Bureau publishes three different establishment-based employment measures for any given quarter. Each of these measures--QCEW, BED, and CES--makes use of the quarterly UI employment reports in producing data; however, each measure has a somewhat different universe coverage, estimation procedure, and publication product.

Differences in coverage and estimation methods can result in somewhat different measures of over-the-quarter employment change. It is important to understand program differences and the intended uses of the program products. (See table below.) Additional information on each program can be obtained from the program Web sites shown in the table on the following page.

## Summary of Major Differences between QCEW, BED, and CES Employment Measures

	<b>QCEW</b>	<b>BED</b>	<b>CES</b>
Source	--Count of UI administrative records submitted by 8.2 million employers nationally	--Count of longitudinally-linked UI administrative records submitted by 6.4 million private sector employers	--Sample survey: 400,000 employers nationally
Coverage	--UI and UCFE coverage: all employers subject to state and federal UI Laws	--UI Coverage, excluding: government, private households, and establishments with zero employment	Nonfarm wage and salary jobs: --UI Coverage, excluding agriculture, private households, and self-employed --Other employment, including railroads, religious organizations, and other non-UI-covered jobs
Publication frequency	--Quarterly -7 months after the end of each quarter	--Quarterly -8 months after the end of each quarter	--Monthly -Usually first Friday of following month
Use of UI file	--Directly summarizes and publishes each new quarter of UI data	--Links each new UI quarter to longitudinal database and directly summarizes gross job gains and losses	--Uses UI file as a sampling frame and annually realigns (benchmarks) sample estimates to first quarter UI levels
Principal products	--Provides a quarterly and annual universe count of establishments, employment, and wages at the county, MSA, state, and national levels by detailed industry	--Provides quarterly employer dynamics data on establishment openings, closings, expansions, and contractions at the national level --Future expansions will include data at the state level by industry and size of establishment	--Provides current monthly estimates of employment, hours, and earnings at the MSA, state, and national level by industry
Principal uses	--Major uses include: -Detailed locality data -Periodic universe counts for benchmarking sample survey estimates -Sample frame for BLS establishment survey	--Major uses include: -Business cycle analysis -Analysis of employer dynamics underlying economic expansions and contraction by size of establishment	--Major uses include: -Principal national economic indicator -Official time series for employment change measures -Input into other major economic indicators
Program web sites	-- <a href="http://www.bls.gov/cew/">www.bls.gov/cew/</a>	-- <a href="http://www.bls.gov/bdm/">www.bls.gov/bdm/</a>	-- <a href="http://www.bls.gov/ces/">www.bls.gov/ces/</a>

## Coverage

Employment and wage data for workers covered by state UI and Unemployment Compensation for Federal employees (UCFE) laws are compiled from quarterly contribution reports submitted to Michigan Department of Labor & Economic Growth by employers. In addition to the quarterly contribution reports, employers who operate multiple establishments within a state complete a questionnaire, called the "Multiple Worksite Report," which provides detailed information on the location of their establishments. These reports are based on place of employment rather than place of residence. UI and UCFE coverage is broad and basically comparable from state to state.

Major exclusions from UI coverage are self-employed workers, religious organizations, most agricultural workers on small farms, all members of the Armed Forces, elected officials in most states, most employees of railroads, some domestic workers, most student workers at schools, and employees of certain small nonprofit organizations.

Gross job gains and gross job losses in this release are derived from longitudinal histories of private sector employers' employment and wages submitted by the Michigan Department of Labor & Economic Growth to BLS in the fourth quarter of 2006. Gross job gains and gross job losses data in this release do not report estimates for government employees or private households (NAICS 814110), and do not include establishments with zero employment over three quarters.

## Concepts and methodology

The Business Employment Dynamics data measure the net change in employment at the establishment level. These changes come about in one of four ways. A net increase in employment can come from either opening establishments or expanding establishments. A net decrease in employment can come from either closing establishments or contracting establishments. Gross job gains include the sum of all jobs added at either opening or expanding establishments. Gross job losses include the sum of all jobs lost in either closing or contracting establishments. The net change in employment is the difference between gross job gains and gross job losses.

The formal definitions of establishment-level employment changes are as follows:

*Openings.* These are either establishments with positive third month employment for the first time in the current quarter, with no links to the prior quarter, or with positive third month employment in the current quarter following zero employment in the previous quarter.

*Expansions.* These are establishments with positive employment in the third month in both the previous and current quarters, with a net increase in employment over this period.

*Closings.* These are either establishments with positive third month employment in the previous quarter, with no employment or zero employment reported in the current quarter.

*Contractions.* These are establishments with positive employment in the third month in both the previous and current quarters, with a net decrease in employment over this period.

All establishment-level employment changes are measured from the third month of each quarter. Not all establishments change their employment levels; these establishments count towards estimates of total employment, but not for levels of gross job gains and gross job losses.

Gross job gains and gross job losses are expressed as rates by dividing their levels by the average of employment in the current and previous quarters. This provides a symmetric growth rate. The rates are calculated for the components of gross job gains and gross job losses and then summed to form their respective totals. These rates can be added and subtracted just as their levels can. For instance, the difference between the gross job gains rate and the gross job losses rate is the net growth rate.

The linkage process matches establishments' unique State Unemployment Insurance (UI) Numbers identification numbers. Between 95 to 97 percent of establishments identified as continuous from quarter to quarter are matched by UI numbers. The rest are linked in one of three ways. The first method uses predecessor and successor information, identified by the states, which relates records with different UI numbers across quarters. Predecessor and successor relations can come about for a variety of reasons, including a change in ownership, a firm restructuring, or a UI account restructuring. If a match cannot be attained in this manner, a probability-based match is used. This match attempts to identify two establishments with different UI numbers as continuous. The match is based upon comparisons such as the same name, address, and phone number. Third, an analyst examines unmatched records individually and makes a possible match.

In order to ensure the highest possible quality of data, The Michigan Department of Labor & Economic Growth verifies with employers and updates, if necessary, the industry, location, and ownership classification of all establishments on a 3-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year. Changes resulting from improved employer reporting also are introduced in the first quarter.

## Seasonal adjustment

Over the course of a year, the levels of employment and the associated job flows undergo sharp fluctuations due to such seasonal events as changes in the weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large.



Because these seasonal events follow a more or less regular pattern each year, their influence can be eliminated by adjusting these statistics from quarter to quarter. These adjustments make nonseasonal developments, such as declines in economic activity, easier to recognize. For example, the large number of youths taking summer jobs is likely to obscure other changes that have taken place in June relative to March, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. The adjusted figures provide a more useful tool with which to analyze changes in economic activity.

The employment data series for opening, expanding, closing, and contracting establishments are independently seasonally adjusted; net changes are calculated based on the difference between gross job gains and gross job losses. Similarly, the establishment counts data series for opening, expanding, closing, and contracting establishments are independently adjusted, and the net changes are calculated based on the difference between the number of opening and closing establishments. Additionally, establishment and employment levels are independently seasonally adjusted to calculate the seasonally adjusted rates. Concurrent seasonal adjustment is run using X-12 ARIMA.

The net over-the-quarter change derived by summing the BED component series will differ from the net employment change estimated from the seasonally adjusted total private employment series from the CES program. The intended use of BED statistics is to show the dynamic labor market changes that underlie the net employment change statistic. As such, data users interested particularly in the net employment change and not in the gross job flows underlying this change should refer to CES data for over-the-quarter net employment changes.

### **Reliability of the data**

Since the data series on Business Employment Dynamics are based on administrative rather than sample data, there are no issues related to sampling error. Nonsampling error, however, still exists. Nonsampling errors can occur for many reasons, such as the employer submitting corrected employment data after the end of the quarter or typographical errors made by businesses when providing information. Such errors, however, are likely to be distributed randomly throughout the dataset.

Changes in administrative data sometimes create complications for the linkage process. This can result in overstating openings and closings while understating expansions and contractions. The BLS continues to refine methods for improving the linkage process to alleviate the effects of these complications.

### **Additional statistics and other information**

Several other programs within BLS produce closely related information. The QCEW program, also known as the ES-202 program, provides both quarterly and annual estimates of employment by state, county, and detailed industry. News releases on quarterly county employment and wages and average annual pay by state and industry are available upon request from the Division of Administrative Statistics and Labor Turnover, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212; telephone 202-691-6567; (<http://www.bls.gov/cew/>); (e-mail: [CEWInfo@bls.gov](mailto:CEWInfo@bls.gov)).

The CES program produces monthly estimates of employment, its net change, and earnings by detailed industry. These estimates are part of the Employment Situation report put out monthly by BLS.

The Job Openings and Labor Turnover Survey (JOLTS) program provides monthly measures of job openings, as well as employee hires and separations.

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